

Meat Slaughter, Processing & Products



THE VIEW FROM 116 STATE STREET

As I write this there is hope we are emerging from the worst of the pandemic. The virus has tested all of us for more than a year. But as more of us are vaccinated there are signals that suggest that by July 4 we could return to a “normal” way of life. Our fingers are crossed. Thanks for all you are doing to keep Vermonters safe and fed.

We will continue to rebuild the economy. The Governor and the legislature are working on relief programs. It is too early to say where we will land but we need to think big. We are looking at improving our aging infrastructure. We need investments in water and sewer, broadband and cell and investments that will improve our agriculture infrastructure in our food system. We also have more time to be

thoughtful about these investments. Congress gave the states four years to spend the American Rescue Plan dollars, so we do have time to get this right.

On the federal side, U.S. Secretary of Agriculture Tom Vilsack announced the USDA Pandemic Assistance Program “The initiative will reach a broader set of producers than in previous COVID-19 aid programs. USDA is dedicating at least \$6 billion toward the new programs and will also develop rules for new programs that will put a greater emphasis on outreach to small and socially disadvantaged producers, specialty crop and organic producers, timber harvesters, and support for the food supply chain and producers of renewable energy, among others,” USDA announced.

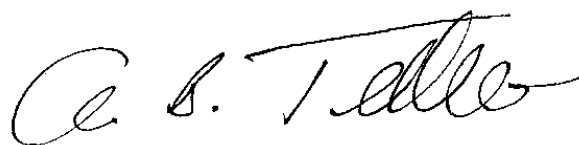
I would encourage farmers and producers to reach out to their local FSA office for more details. Here are a few highlights from USDA.

“USDA is implementing updates to the Coronavirus Food Assistance Program (CFAP) for producers of agricultural commodities marketed in 2020 who faced market disruptions due to COVID-19. USDA’s Farm Service Agency (FSA) will reopen sign-up for CFAP 2 for at least 60 days beginning on April 5, 2021. FSA has committed at least \$2.5 million to improve outreach and will establish partnerships with organizations

with strong connections to socially disadvantaged communities.”

Visit farmers.gov/cfap for more information on the Coronavirus Food Assistance Program, including eligible commodities, producer eligibility, payment limitations and structure. Look for more federal and state updates here and monitor our newsletters and posts on the Agency’s Facebook, Twitter and Instagram social media platforms.

We wish you a productive spring and summer. Hoping the weather is kind to you and your businesses. Happy Spring.



Anson Tebbetts, Secretary, Agency of Agriculture, Food & Markets

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This Month's Recipe

Apple Cake Pie

Submitted by Roberta Bothfeld

Editor's note: Secretary Tebbetts found a copy of the 1962 Cabot Cooking Capers booklet so we thought we would share one of the recipes with you.

Ingredients

1 egg
¼ tsp salt
1 tsp vanilla
¾ cup sugar
½ cup flour
½ tsp baking powder
¼ tsp cinnamon
1 cup apples, peeled and chopped
½ cup chopped nuts

Instructions

Preheat oven to 350 degrees. In a large mixing bowl, beat egg. Mix in the sugar, salt and vanilla. Add the flour and baking powder. Batter will be stiff. Add chopped apples and nuts. Mix into the batter. Turn into a well-greased 8- or 9-inch pie plate. Bake at 350 for 30 minutes. Cut into wedges to serve, top with ice cream, hard sauce, or whipped cream. Serve warm or cold.

Note: You can omit the nuts entirely or substitute seedless raisins.



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W I T H U S



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Coronavirus Food Assistance Program

By USDA – Farm Service Agency

Has your agriculture operation been directly affected by the coronavirus pandemic? USDA is implementing updates to the Coronavirus Food Assistance Program for producers of agricultural commodities marketed in 2020 who faced market disruptions due to COVID-19. This is part of a larger initiative to improve USDA pandemic assistance to producers.

U.S. Secretary of Agriculture Tom Vilsack announced an expansion of the Coronavirus Food Assistance Program (CFAP) on March 24, 2021. This is part of

an effort to reach a greater share of farming operations nationwide and improve USDA pandemic assistance. FSA has committed at least \$2.5 million to establish partnerships and direct outreach efforts intended to improve outreach for CFAP 2 and will cooperate with grassroots organizations with strong connections to socially disadvantaged communities to ensure they are informed and aware of the application process. CFAP updates include reopening of Coronavirus Food Assistance Program 2 (CFAP 2), additional payments for eligible cattle and row crop producers, and the processing of payments for

certain applications filed as part of CFAP Additional Assistance.

Additional forms needed to complete your CFAP 2 application may already be on file with your local USDA Service Center. You can find those forms and more information about applying for CFAP 2 at farmers.gov/cfap/apply.

To complete the CFAP 2 application, producers will need to reference their sales, inventory, and other records. However, since CFAP 2 is a self-certification program, this documentation will not need to be submitted with the application. Because applications are subject to County Committee review and

spot check, some producers will be required to provide documentation. Producers should retain the records and documentation they use to complete the application. Visit farmers.gov/cfap/apply to learn more.

The original application period for CFAP 2 was September 21 through December 11, 2020. USDA will reopen CFAP 2 signup for all eligible producers beginning April 5, 2021. A deadline for signup will be announced at a later date. For more information, contact your local FSA office or 802-658-2803.

Vermont COVID-19 Agriculture Assistance Program Impact

Agriculture & Working Lands Application Summary

Between August and December 2020, the Vermont Agency of Agriculture, Food & Markets distributed \$25.6 million in Vermont COVID-19 Agriculture Assistance Program (VCAAP) grants to agriculture, food, and forestry businesses and organizations.

The purpose of the program was to help offset revenue losses and expenses the sector experienced due to market and business disruptions related to the COVID-19 pandemic. Funding for VCAAP was appropriated by the Vermont State Legislature from federal Coronavirus Relief Funds in four bills that determined

"The VCAAP grant was a huge help to us. Help with filling out the application was always a phone call away. We are very grateful for our grant."

eligibility criteria and maximum award amounts.

The application was open to eligible farmers, meat and poultry processors, commercial slaughterhouses, farmers' markets, value-added food product businesses, forest products businesses, and producer associations

with annual gross sales of at least \$10,000.

The initial Agriculture and Working Lands Assistance Application launched on August 19 and closed on October 1, 2020. The Agency relaunched the application on October 19 with legislatively initiated eligibility changes. The

application officially closed on November 15, 2020, after which the Agency requested a transfer of \$2 million from the dairy application appropriation in Act 138 (S.351) to the Agriculture and Working Lands Application due to increased demand for these funds.

In the end there were 302 awards for a total of \$6.7 million to agricultural businesses and organizations that experienced lost revenue or additional expenses due to the COVID-19 public health emergency.

Agriculture and Working Lands applicants were eligible for one grant up to the following maximum amounts, based on 2019 annual gross sales:

- Up to \$2,500 for applicants with sales of \$10,000 – \$24,999
- Up to \$5,000 for applicants with sales of \$25,000 – \$49,999
- Up to \$10,000 for applicants with sales of \$50,000 – \$99,999
- Up to \$20,000 for applicants with sales of \$100,000 or more
- Up to \$50,000 for applicants with sales of \$250,000 or more



Food System Plan

continued from page 1

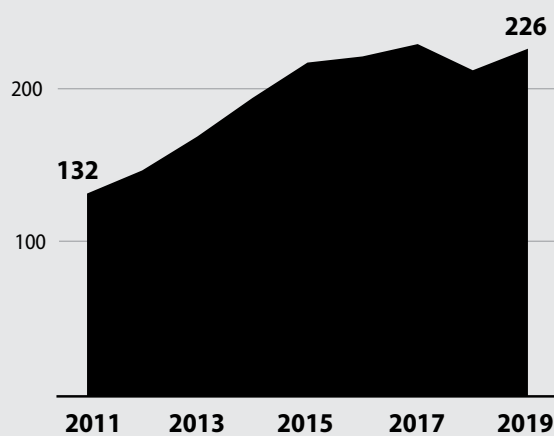
distributors market these cuts to retail outlets (e.g., restaurants, grocery stores). Shipping carcasses or primal cuts to retailers which have cutting operations increases the efficiency of the inspected facilities.

Vermont regulations restrict specialty processes such as curing and smoking at the retail level, however, Vermont developed a variance program in which documentation addressing food safety hazards allows for a regulatory waiver, increasing market opportunities for these products.

Since 2005, overall meat slaughter and processing facilities have gradually expanded, and quality has improved, but more work is needed. New facilities in Lyndonville and Springfield are offering services that had been extremely limited across the state (e.g., curing, smoking, cooking). Expansion of the goat dairy industry, and rising demand for sheep and goat meat, increases the need for small ruminant slaughter, but most slaughter facilities concentrate on beef and pork due to better profit margins and higher demand. As expansion occurs, skilled workers are at a premium. Limited available technical training, working conditions, occupational hazards, knife skills, wages, and physical demands make it difficult to find and keep skilled help.

Higher costs associated with small-scale livestock raising, slaughter, and

Employment at Vermont Slaughter and Processing Facilities



processing makes it difficult to find lucrative markets within Vermont. Recent legislative changes exempting on-farm slaughter from inspection were intended to assist small farmers. When livestock is pre-sold to consumers, then on-farm slaughter is allowed, but the practice has had limited growth². Consumer demand for locally produced meats rose during the COVID-19 pandemic, due in part to fear of food shortages, news of closures at national plants, and food safety concerns. Most commercial slaughter and processing facilities now operate at full capacity and wait times for additional processing slots can be several months. This can inhibit producers at all scales from meeting the growing consumer demand for their meat.

Current Conditions: Slaughter

Vermont has seven USDA-inspected, two state-inspected, two custom (i.e., acceptable facilities, no daily inspection, product labeled Not for Sale), and several exempt on-farm operations, all providing slaughter services to producers in Vermont and out of state. Most plants slaughter one

to three days per week and also provide processing services. Some aggregate carcasses from multiple producers for larger orders or distributing for further processing under a label or to retailers. Some participate in more stringent third-party audits required

by markets such as Whole Foods.

Bottlenecks and Gaps:

- It is difficult to find and keep qualified staff, especially those with adequate stunning skills.
- Seasonality, the expense of providing health insurance, and an inconsistent quantity of livestock all impact the business viability of slaughter plants.
- A producers' lack of knowledge about inspection or regulations, or inadequate business planning, increases burdens on slaughter facilities.
- There is a shortage of facilities which slaughter sheep and goats.
- Additional financial and technical assistance for waste management and control is needed.

Opportunities:

- Expanding slaughter to include small ruminants and Halal (religious) inspection can increase workload consistency, access to niche local and regional markets, and full-time employees.
- When exempt slaughter operations transition to state or federal inspection it increases profitability,

available services, and Vermont meat sales.

- When farmers increase their herd size or act as contract growers supplying slaughterhouses with consistent numbers of animals each week, it expands the supply of Vermont meat.
- Small farmers can utilize the expanded on-farm slaughter exemptions.

Current Conditions: Processing

Vermont has 26 inspected and 24 custom meat-processing facilities. Most focus on processing their own products but are able to do private label, although few do so for small-volume producers. The larger facilities have equipment for streamlined efficiency and additional forms of processing. Few in-state facilities exist for producers who want to meet the growing consumer demand for value-added cooked and dry or semi-dry sausages (hot dogs, kielbasa, salami, etc.).

Bottlenecks and Gaps:

- Limited value-added processing and co-packing options restrict market opportunities for small producers.
- There are not enough employees trained in safe production and handling of meat.
- Educational programs are limited, and expensive due to the high cost of raw materials for hands-on training.
- If the producer's paperwork for animal welfare and other label claims is lacking at time of inspection, the label cannot be applied, the producer will not be able

to sell the product to the anticipated market, and relationships and finances suffer.

Opportunities:

- Inspected co-packing operations can create new staff positions to provide consulting services concerning food safety, labeling claims (e.g., grass-fed), and marketing for producers, or, to assist slaughterers, processors, and producers in understanding regulatory requirements, thereby streamlining operations.
- Inspected incubator kitchens provide producers with opportunities to test products and expand.
- Processors are allocated 40 hours for inspection at no charge, so custom processing after hours can extend employment opportunities.

Current Conditions: Products

Local hams and bacon continue to be popular. Farmers and processors are also increasing profits and capitalizing on consumer interest with value-added processing, turning "utility cuts" (e.g., shank meat) into products like salamis and fresh artisanal sausages, though higher production cost limits the markets in Vermont. Consumer interest in humanely raised and labeled products presents marketing opportunities, but these claims require documentation and traceability from the farm to the package.

Bottlenecks and Gaps:

- The lack of in-state operations capable of complex processing for large brands and small

company private labeling limits expansion and job growth.

- Many producers do not have enough animals to start a processed product line.
- Many producers lack the marketing expertise to promote processed products.
- When producers lack marketing skills for utility-cut products, it causes a backlog of unsold product.
- The required food safety documents for whole muscle curing (e.g., whole ham prosciutto) are difficult to obtain, as they are considered proprietary information by those who developed the recipes.

Opportunities:

- Rising consumer interest in cured or uncured, cooked, dry or semi-dry sausages, etc., encourages processors to expand capabilities to include smokehouses, ovens, and aging chambers.
- Chefs can create entrees from cuts normally considered utility cuts (e.g., shanks).
- Many cuts typically ground (e.g., chuck) can be utilized for additional value-added products.
- Collaborative marketing between processors and producers for claims like “Small Batch,” “produced by...,” etc., on specialty products can differentiate one producer from another.

Summary

The continued growth of local meat production depends on sufficient well-operated, inspected slaughter and processing establishments, and producers understanding their co-dependency with these establishments. Federal inspection allows for widespread distribution of meat products, and incubator kitchens (e.g., Mad River Food Hub) have helped producers to start businesses and graduate to their own processing facilities, expanding production within Vermont. However, the small scale of producers, cost of raw product and further processing, labeling, etc., often drives prices higher than Vermonters can or are willing to pay. Across all operations, lack of a qualified, properly trained workforce also hinders expansion. Solving the bottlenecks in the industry should be a priority as we look to expand the agricultural economy in the state.

Recommendations:

- Establish a position to educate meat producers on all aspects of the inspection system requirements as well as general information to be aware of when contacting establishments for contract work, such as Hazard Analysis Critical Control Points (HACCP), humane handling, labeling, and packaging for both slaughter and processing.



This position could also help inspected operations understand requirements of third-party audits for facilities, quality control, and animal welfare. One FTE recommended at UVM Extension. Cost: \$100,000

- Subsidize existing food safety training courses for operators, their staff, and prospective entrepreneurs, and the academic and technical tuition cost for workforce development. Offer curriculum for marketing so producers can determine what market approach is right for their farm (i.e., direct marketing, contract growing, wholesale, carcass sales, etc.). Costs depend on the number of attendees and length of study.
- Develop an interactive business directory for slaughter and processing in Vermont which would include slaughter and processing schedules and available dates at facilities, trucking days, services offered, etc., in a regularly updated and searchable format. Producers could utilize the directory,

which would improve communication and lead to efficiencies, helping operators to operate full days instead of multiple partial days. Costs to establish the directory and maintain it will need to be determined.

- Continue to support the development of clear guidelines for wastewater disposal and composting operations with Vermont Agency of Agriculture, Food and Market's (VAAF) Water Quality division and the Vermont Agency of Natural Resources. Develop funding to assist with construction of systems.
- Continue to support the growth of VAAF Meat Inspection and Agricultural Development programs, which help expand Vermont products into the national marketplace and develop consumer education and public awareness campaigns around the steps involved in getting meat products from farm to table. Suggested: two FTE positions, estimated cost: \$200,000.

For Agricultural Events and Resources Visit:

- The VT Agency of Agriculture Events Calendar: <https://agriculture.vermont.gov/calendar>
- UVM Extension Events Calendars: https://www.uvm.edu/extension/extension_event_calendars
- Vermont Farm to Plate Events Calendar: <https://www.vtfarmtoplate.com/events>
- Northeast Organic Farming Association of Vermont Events Calendar: <http://nofavt.org/events>
- DigIn Vermont Events Calendar: <https://www.diginvt.com/events/>
- Agricultural Water Quality Regulations: <http://agriculture.vermont.gov/water-quality/regulations>
- Agency of Ag's Tile Drain Report now available here: <http://agriculture.vermont.gov/tile-drainage>
- VAAF annual report available here: http://agriculture.vermont.gov/about_us/budgets_reports
- Farm First: Confidential help with personal or work-related issues. More info call: 1-877-493-6216 any-time day or night, or visit: www.farmfirst.org
- Vermont AgrAbility: Free service promoting success in agriculture for people with disabilities and their families. More info call 1-800-639-1522, email: info@vcil.org or visit: www.vcil.org.

For more agricultural events visit our Funding Opportunities & Resources for Businesses webpage at: http://agriculture.vermont.gov/producer_partner_resources/funding_opportunities

New Technical Assistance Opportunities for Dairy Farmers

By Colene Reed and Tony Kitsos, University of Vermont Extension's Center for Sustainable Agriculture and Agricultural Business

The University of Vermont Extension, in partnership with the Northeast Dairy Business Innovation Center (NE-DBIC), is pleased to announce a new program designed to deliver direct technical assistance to

Vermont's dairy farm businesses. The program will offer a blend of direct, one-on-one technical support with other open learning opportunities to bring to the farm manager the most current information on managing a dairy business. The program will be implemented jointly by UVM Extension's Center for Sustainable Agriculture and the Agricultural Business Programs. The focus will be

to bring the newest ideas in managing animal health, milk quality, nutrition, pasture management and new technologies to progressive managers who wish to explore these new trends in agriculture.

Whether you manage cows or small ruminants, a small or large herd, conventional or organic, confinement or grazing herds, working with this new program can help you

reach your business goals for the future. The program can also offer to help farms establish dairy management "Jump Teams", designed to target and solve a variety of specific herd management problems. Typical topics can include milk quality, udder health, cow comfort, nutrition management, and other whole farm systems. Farm managers select the specialists with whom they want to work to assess,

identify, and reach viable solutions to their concerns.

The program will be rolled out throughout the 2021 season, with intake and farm assessments beginning in May 2021.

If you have questions or would like to join the program roster, please contact Tony Kitsos (802-524-6501, tony.kitsos@uvm.edu) or Colene Reed (colene.reed@uvm.edu) for more information.

Dairy Marketing and Branding Services Grant Application is Open

The NE-DBIC's Dairy Marketing and Branding Services Grant application is currently open. This grant serves to elevate established value-added dairy processor businesses across Vermont and the Northeast region. Projects funded by this grant will increase the exposure and promotion of regionally produced dairy products guided by marketing/branding professionals. Funded projects will increase consumer awareness of products, develop market channels and distribution opportunities to increase product placement, support

innovative strategies to increase consumption, and/or increase business revenues.

Grant funds will be used to prioritize the grantee hiring a professional marketing/branding contractor to develop strategy and/or content. Up to 25% of the grant funds may be used to implement the strategy and/or content developed by the contractor.

Grants will range from \$10,000 - \$50,000.

For more information and to apply, visit <https://bit.ly/3sGMzXM> or contact Kathryn Donovan at kathryn.donovan@vermont.gov or 802-585-4571.



NE-DBIC Selects Contractor for New England Dairy Distribution Study

The Northeast Dairy Business Innovation Center selected Karen Karp and Partners (KK&P) for a \$95,000 contract to conduct research of New England's distribution network capacity for value-added dairy products. This project will address New England's distribution system, capacity, and geographic considerations to determine opportunities to get products to further and more robust markets. The contractor will research and report on the current state of distribution for small and mid-sized dairy processors in New England. They will then make

recommendations for addressing challenges for processors looking to distribute to Northeastern metro markets and along the Eastern Seaboard.

This contracting opportunity stems from a recommendation KK&P made in their Vermont Dairy Market Assessment provided to the Vermont State Legislature in 2020.

This project will be completed in spring/summer of 2022. Results will be made available to the public through NE-DBIC. For more information, contact Laura Ginsburg at laura.ginsburg@vermont.gov or 802-522-2252.



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Required Testing for Hemp Crops and Hemp Products

By Robert Shipman, VT
Agency of Agriculture, Food &
Markets

The Vermont Agency of Agriculture, Food and Markets' Hemp Program reminds hemp growers and processors of their obligation to comply with the Vermont Hemp Rules including testing requirements that reduce risk and help protect the consuming public. All hemp crops, processed hemp and hemp-infused products must be tested and meet potency and contaminant action limits. Some action limits for processed products can be met at the hemp crop harvest lot or hemp concentrate process lot testing phase. For instance, a hemp product, such as a tincture, would be compliant if the concentrate used in manufacturing the tincture complies with contaminant thresholds for microbiological, residual solvents, pesticides, and heavy metal contaminants. Therefore, having test results at this phase of processing can reduce the amount of testing at the final product stage. Trim flower must be tested at the product stage for both moisture/water activity and microbiological contaminants.

Testing Areas

- **Potency testing** determines the level of cannabinoids present in a sample. The Hemp Program has action limits for delta 9-THC and



Total THC, for crops, trim flower, products and infused products.

- **Moisture or Water Activity** analysis determines the amount of water in a sample or the relative chemical potential energy of water. Moisture analysis is used to calculate dry weight potency and contaminant concentrations for crops and trim flower. In addition, processed trim flower also has action limits for moisture or water activity. The drier the hemp the less likely the material can support microbiological growth. Using best practices in hemp drying and storage can also help minimize microbiological growth.
- **Microbiological** analysis includes three different tests: total aerobic bacteria, total combined yeast and mold, and mycotoxins. Testing at trim flower and concentrate stage will satisfy this requirement for testing. Mycotoxins are toxic, and therefore

have a low action limit of 20 ppb (parts per billion).

- **Heavy Metals** analysis is required for all concentrates and for crops grown on former orchard or non-agricultural use lands. A compliant soil test can be done in place of crop testing. Heavy metals can be present in the soil, air and water, and can also be taken up by the cannabis plant.
- **Pesticide** testing includes 15 compounds. Sources of pesticides in hemp include inappropriate application, drift from nearby agricultural fields, or contact with contaminated agricultural or processing equipment. Hemp crops must be tested if they are not certified organic. "Hemp concentrates" always require testing, as extraction can concentrate pesticides to harmful levels.
- **Residual solvents** are tested when solvent-based extraction techniques are used in either primary

botanical extraction or secondary processing. This includes ethanol winterization of CO₂ extractions. For hemp products and infused products, a food grade solvent is allowed if it is in the ingredient list of the final product.

Cannabinoid Content Label Claims

Label claims for cannabinoid content should be tested at the level of the marketed product. A processor should be able to produce a product with the same cannabinoid concentration using the same standard operating procedure and standardized ingredient list. A certificate of analysis demonstrating cannabinoid content in the final product may be used as proof of a label guarantee, and it would not be necessary to test every process lot of a product line for cannabinoid potency. Maintaining records of all the manufacturing steps, ingredients, and test records by product line is expected in order to be in compliance. The Hemp Program recommends periodically retesting product lines and if necessary, updating procedures to ensure consistency.

Please refer to the

Vermont Hemp Rules to learn when analytical testing for potency and contaminants are necessary, and requirements for using label guarantees, and labeling requirements, as well as, record-keeping requirements for all test results from seed to shelf, https://agriculture.vermont.gov/sites/agriculture/files/documents/PHARM/hemp/Vermont_Hemp_Rules_effective_05_21_20.pdf.

These testing requirements and hemp potency and contaminant action limits can also be found here, https://agriculture.vermont.gov/sites/agriculture/files/documents/PHARM/hemp/FINAL_cannabis_testing_tables_10-16-20.pdf. Specifically, table 2 lists testing requirements, and tables 3 through 8 list threshold levels (action limits) that must not be exceeded for the hemp crop or product to be compliant.

Questions about the requirements for hemp testing can be directed to Cannabis Quality Control Program Compliance Specialist, Bob Shipman by Robert.Shipman@Vermont.gov, or AGR.HempLabCertification@vermont.gov or by phone, 802-522-5169.



Produce Safety Bite: Animals

On-farm food safety tips for fruit & vegetable growers

By Ollie Cultrara, VT Agency of Agriculture, Food & Markets

Produce safety is about

protecting our fruits and vegetables from becoming contaminated with pathogens that can cause serious illness. These best practices can help you prevent feces (poop) from wildlife or farm animals from contaminating produce.

Separate animals from produce

Wildlife can damage crops and transfer pathogens to produce. Deter wildlife with technologies like fencing, traps, or sound or light devices. Don't allow livestock or pets in areas where produce is grown, washed, packed, or stored.

Avoid cross-contamination

Cross-contamination is the transfer of pathogens to produce from another source, such as manure. To



prevent cross-contamination, change your shoes and outer clothing and wash your hands after working with animals and before handling

produce.

Look up

You likely monitor your packing and storage areas for rodents, but do you check for potential sources of contamination, like bird droppings, from above? Prevent birds from roosting in farm structures that house produce or food contact surfaces. Store harvest containers and packaging under cover.

Know when not to harvest

Train your crew to scout for animal damage and feces during the growing season, and check again before harvesting. Tools like surveyor flags can be used to indicate no-harvest zones around areas of animal intrusion. Empower everyone on the farm

to identify and prevent harvesting of produce that is visibly damaged or contaminated with feces.

The Food Safety Modernization Act (FSMA) Produce Safety Rule

(PSR) includes specific requirements for preventing contamination from animals. Whether or not your farm is subject to the PSR, the Vermont Produce Program can help you take the next

step in building food safety culture on your farm. Get in touch with our team at AGR.FSMA@vermont.gov, (802) 461-5128, or agriculture.vermont.gov/produceprogram

New Grants Calendar Available

The Agency of Agriculture, Food & Markets is pleased to be able to help you more easily identify upcoming grant opportunities. Please go to <https://agriculture.vermont.gov/grants/calendar> for more information.

Programs Open Year-Round Farmstead Best Management Practices (BMP) Program

Technical and financial assistance for engineered conservation practices on Vermont farms.

Jenn LaValley
Jenn.LaValley@vermont.gov
(802) 828-2431

Pasture And Surface Water Fencing (PSWF) Program

Technical and financial assistance for pasture management and livestock exclusion from surface water on Vermont farms

Kaitlin Hayes
Kaitlin.Hayes@vermont.gov
(802) 622-4112

Grassed Waterway and Filter Strip (GWFS) Program

Technical and financial assistance for implementing buffers and seeding down critical areas on Vermont farms

Sonia Howlett
Sonia.Howlett@vermont.gov
(802) 522-4655

Conservation Reserve Enhancement Program (CREP)

Implementation costs of vegetated buffers

and rental payments for maintained buffers on Vermont agricultural land

Ben Gabos
Ben.Gabos@Vermont.gov
(802) 461-3814

Phil Wilson
Phillip.Wilson@vermont.gov
(802) 505-5378

May Field Agronomic Practices (FAP) Program

Per-acre payments for conservation practices on Vermont farms and support for one-time water quality educational events or trainings

Nina Gage
Nina.Gage@vermont.gov
(802) 622-4098

June Goat & Sheep Dairy Supply Chain Impact Grant

Grants for projects that address supply chain challenges for existing goat and sheep dairy businesses

Kathryn Donovan
Kathryn.Donovan@vermont.gov
(802) 585-4571

August Dairy Food Safety Certification Grant

Grant funding to support food safety improvements including technical assistance, audits, plan writing, and infrastructure upgrades

Kathryn Donovan
Kathryn.Donovan@vermont.gov
(802) 585-4571



Opportunity for Vermont Farms in Payments for Ecosystem Services

By Sonia Howlett, VT Agency of Agriculture, Food & Markets

Interest by Vermont's farmer watershed groups has initiated widespread discussion on the opportunities that Payments for Ecosystem Services (PES) provide, and how systems can be set up to compensate farmers more effectively for the results of their land management that benefit the public. Now there are research initiatives and working groups throughout Vermont discussing this topic. The PES Working Group (agriculture.vermont.gov/PES), for example, was formed by the legislature, includes representation from a variety of farmer groups and farm types, and meets monthly. So — what is PES, and why is it so interesting for farms in Vermont?

“Ecosystem Services” refers to the varied benefits that effective management of land provides to humans. “Payment for Ecosystem Services” recognizes that effective land management has a monetary value to humans that land managers are not adequately compensated for and closes that loop by causing the beneficiaries (e.g. society, companies, townships, etc.) to pay the land managers for the services that they provide.

In the agricultural context, farms are generally paid for providing ecosystem services of food and fiber but are less commonly paid



for providing the variety of other societal benefits that result from land being in agriculture and managed well, including flooding mitigation, carbon, water and nutrient storage and cycling, solar energy capture, and being beautiful (tourist appeal), among many others. A PES system would pay a farm for providing one or several of these currently undervalued benefits.

PES systems take many forms. “Market-Based” PES systems have multiple buyers competing to purchase the ecosystem services and prices are driven by economic principles such as supply and demand. Most market-based models involve buying and selling “credits” that reflect a certain amount of an Ecosystem Service, as measured, and verified by a third party. Carbon credits are an example of this kind of PES market mechanism.

The “Single-Buyer” PES mechanism is simpler: one group, generally a company or a unit of government, acts on behalf of their constituents to pay land managers for the Ecosystem

Services that benefit their constituents. You may already have engaged with this type of PES system as many environment-focused government grant programs from organizations like the VT Agency of Agriculture Food and Markets (VAAFMM) and the USDA Natural Resources Conservation Service (NRCS) are single-buyer PES programs. These current PES programs tend to take a “Payment-for-Practice” approach: governments take money from the public to provide cost-share payments to farms to implement practices that

in turn benefit the public by improving water quality or other conservation outcomes.

“Payment-for-Performance,” on the other hand, pays farms on the outcomes of their land management, rather than on implementation. For example, if a farm planted a field with cover crop, they would not be paid based on number of acres but rather on the pounds of carbon sequestered, gallons of water kept clean, pounds of phosphorus kept out of waterways, etc. This approach is less common than “Payment-

for-Practice” because it is more complicated, harder to quantify, and makes it difficult for farmers to estimate how much payment they would receive for implementing a practice. However, “Pay-for-Performance” PES is exciting because it more directly connects payment with actual environmental benefit.

The first explicitly Pay-for-Performance PES program in Vermont, the Agency's Vermont Pay-for-Phosphorus Program (agriculture.vermont.gov/VPFP), will roll out for applications in the winter of 2021. Judging from the extent of interest in this approach, it is likely that more such programs and mechanisms will be proposed in Vermont in coming years – so stay tuned!

For more information contact Sonia Howlett by phone, 802-522-4655 or by email, sonia.howlett@vermont.gov

Do you own land in agricultural production that is not very productive and...

- Want to receive payments for some of this land?
- And/or need help paying for and installing necessary grazing infrastructure?

If so, consider enrolling in the Conservation Reserve Enhancement Program (CREP)! CREP takes agricultural land that is located along waterways and is currently in perennial or annual crops out of production to plant riparian forest buffers. Landowners receive an up-front incentive payment as well as annual rental payments for the 15-year duration of the contract, and the costs of the project are nearly always covered at 100% by the FSA, Partners for Fish & Wildlife, and CREP.

For more information and to find out if you qualify, please contact Ben Gabos (802-461-3814 or ben.gabos@vermont.gov) or Phillip Wilson (802-505-5378 or phillip.wilson@vermont.gov)

VERMONT VEGETABLE AND BERRY NEWS



Compiled by Vern Grubinger,
University of Vermont
Extension
(802) 257-7967 ext. 303, or
vernon.grubinger@uvm.edu
www.vvbga.org

Reports From The Field

(Hinesburg) Overwintered greens growing fast. Lots of voles. Cutworms and or army worms were a big problem in the fall and have begun to be a problem again. Whole crew is back from last season, a dream come true.

(Guildhall) The Connecticut's ice broke 4 days ago, so that is good. Strong sales and strong prices this winter. All to be offset by higher input costs it seems. The USDA / VT Foodbank "Farmers to Families" program treated us very well, they bought quite a bit. We have still got potatoes, but not anywhere near what we had in storage this time last year.

Seed potatoes are coming in 2 weeks, but the 2020 drought has made ordering seed challenging. Prices are up 25%, but more concerning is the shortage. Seed orders we placed in November have been anything but firm, as growers run short, and some growers divert seed into tablestock because of the demand.

We have got a few more

acres going into spuds this year which is exciting, and the dairy farm we rotate with is letting us plow up more of their hay ground in anticipation of 2022 crops. Still committed to a 4-year rotation, but it is frustrating not having land enough to plant as many potatoes as we could grow and sell.

(Burlington) Always nice to get a jump on spring tillage and start field work before the season spirals up. Cover crop survival is looking good this winter, probably due to unusually consistent snow cover, but our level of deer grazing damage is clearly increasing year by year. Overall winter tunnel production was good, though outbreaks of spinach downy mildew and Cladosporium put a dent in our spring harvests.

Our successional tunnel arugula crops are some of our nicest in recent years, maybe because we incorporated our nearby field arugula in December and eliminated our arugula downy mildew inoculum. Or maybe it is just the sunshine! Happy to welcome back our research partners this year and continue to advance our knowledge of soil fertility and various maladies. Looking forward to greener fields and abundant harvests in 2021.

(Elmore) Snow is beginning to melt but still deep in some spots--this is the town where sled dog races were for years. Gathering scion wood for grafting our rare and special fruit trees so others can taste the success that we have up here on our zone 3 hill. Our hardy crew is preparing beds the last two weeks so we can stick many

cuttings of our best gooseberries and currants and elderberries which everybody and their grandmother seem to want these days.

Been writing letters to food coops and other organizations expressing my frustration that they are ordering their plants and food from out of state or out of country because it is cheaper. How do they expect any young farmers to grow food or make products if their shelves are so full of product from far away that they have no room for the local ones?

Want to plant cover crops on exposed ground but do not want to waste good seed when it is snowing one day, hot the next, and 15 degrees the day after. Customers from warmer areas want to come pick up their plants but we have to hold them back and say soon, but not yet.

(Jericho) Hoophouse conversion is in full swing as winter greens give their last hoorah and tomato plants and early spring greens invade. March is keeping us hopping from T-shirts to parkas, mud boots to skis, but we are keeping on schedule for seeding and planting because spring will eventually settle in. Crew is happy to be done washing roots and now playing with plants, harvesting greens, and learning new tasks.

This year we finished purchasing all the farmland that we have been leasing over the years, so it is nice to have that security and be done with the work that entailed.

I'm loving all these zoom workshops, because now I can learn from other growers and virtually visit their farms at the same time, I get seedling done in the greenhouse. Or I can watch them late at

night instead of reading the news. But we do miss seeing everyone in person!

(Westminster) We have 3 greenhouses nearly full of transplants of lettuce, kale, collards, and cabbage, and have started tilling some fields in anticipation of planting. We will be spreading compost and forming some beds soon. Typically, we start transplanting mid-April.

This year we are planning on growing more root crops and winter squash, as well as cabbage for the fresh market. We will cut down on the amount of broccoli we grow. No problem selling it, but disease and weather unpredictability make it a tough crop to grow successfully.

This will be the last weekend for our Winter Market, which again had a successful run. People are still leery of shopping amongst large crowds and are happy to buy local. We were able to supply greens from our hoopouses for almost all weekends, so that was helpful.

(Westminster West) It's Showtime here! First plant deliveries begin this week, about a week earlier than last year. New driver, me! Ha-ha, just for this week; hired a regular driver that starts next week. Snow is gone, covers off the garlic field, and the garlic is up and looks really good! Start feeding it early next week. Winter rye green-ing up nicely. Excited for the season coming.

Getting the tomato and other tunnels fertilized and ready. Putting in a massive new water tank to increase our ability to have water for the greenhouses and fields. Some new equipment arriving soon that hopefully will save time and my back!

Great Info on Scouting and Monitoring Greenhouse Pests

Check out the UVM Entomology Lab's web site <https://www.uvm.edu/~entlab/Greenhouse%20IPM/Scouting.html> and the UMass greenhouse and floriculture web site: <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/ipm-scouting-decision-making>

Improve Your Packshed Before Harvest Season

The UVM Extension Produce Safety Team developed a free video series focused on postharvest upgrades for your farm. Whether your project is organizing a relatively simple outside wash station or building a full packshed from scratch, these videos describe the relevant principles and practices, with examples. View all postharvest resources developed by the UVM Ag Engineering team here: <https://blog.uvm.edu/cwcalah/post-harvest/>

Comprehensive Management Guides Are Free On-Line

New England Extension personnel maintain the region's Vegetable Management Guide at <https://nevegetable.org/> which contains recommended cultural practices, varieties, nutrient and pest control recommendations for 30 individual crops. The Small Fruit Management Guide is at <https://ag.umass.edu/fruit/ne-small-fruit-management-guide> and contains info for strawberries, blueberries, brambles, currants and gooseberries and grapes. The Tree

continued on page 13

CLASSIFIEDS

To place a classified ad in *Agriview* sign up to be a paid subscriber — visit our website: <https://agriculture.vermont.gov/administration/vaafm-news/agriview/advertising-agriview>

Email: Ag.agriview@vermont.gov, phone: 802-828-1619. Deadline for submissions is the 1st of each month for next month's issue. Example: January 1st deadline for February issue.

Cattle

2 Registered Guernsey cows: Certified A2A2, milking 75- 80lbs, both sired by Welcome JT – \$1200 each. 1 registered Guernsey bred heifer due late August A2A2 certified, sired by Latimer; dam is EX90 \$1500. 802-222-4047.

22 Jersey cows 2 bred heifers. 4 fresh Jan, 2 Feb, 3 due Mar, 4 Apr, 1 May, 2 Jun. Can be reg. Feed grain hay pasture. 802-775-3846

3 breeding age bulls- one Hereford, 2 angus for breeding or beef. Asking \$850 each or will consider trading for Hereford heifers. 802-586-2857

Angus Bulls for sale good genetics, calving ease bulls. Please call 802 533 9804. Greensboro, VT 05841

Retirement sale: 26 crossbred organic cows, 4 are registered Jersey, rest are Jersey, Shorthorn, Ayrshire and Holstein mix. AI bred to Jersey or Swedish Red to calve in spring and summer. On November 10 still producing 45 lbs. on pasture and 10 lbs grain with 4.4% BF 3.3%P. BTSCC 150. \$45,000 for this very gentle group. Also available 8 well-grown crossbred heifers due in March \$10,000 (802)623-6584

High quality Organic Registered Holstein, Springing and bred heifers available. Call Spring Brook Farm 802-673-9061 or 802-673-3810

Equipment

NDE sawdust/shavings spreader. Can be mounted on three-point hitch or skid

steer. Benson. Pictures on request. Best offer. 770-8060.

John Deere 440B Log Skidder for sale. \$10,000 Call Henry 802-276-3096

Riley stationary hoof trimming chute. Purchase new 2012. Lightly used and excellent shape. \$4500 OBO. 2012 Doda 780 separator with new screens for sale; excellent shape; used very little; \$20,000.00 OBO Bulk milk tanks for sale: (2) One is \$000 gallon Boumatic Dairy Kool, excellent condition-\$24,000.00. OBO. The other is 1500-gallon DEC, also excellent condition-\$8000.00. Double 10 Boumatic parlor for sale: reel, front exit with ATO and meters; auto ID and sort gate; excellent shape-\$30,000.00 OBO. Call 802-533-2984

JD 350 Dozer. New treads, many new undercarriage parts. Winch. Runs well. \$15,000. Thistle Hill Farm info@ThistleHillFarm.com or 802-457-9349

3 point hitch fertilizer spreader 500# works well 350.00. 802 384 3553 and wallysdomesticzoo@gmail.com

25,000 Winco PTO Generator on wheels. New Holland 518, 519 Manure spreader. 254 white Harrows 10 ft good shape. 3 Furrow plows – Sweden. 2 Furrow plows. 11-ton Brock Grain bin. 30 ft Hay elevator – red. 802-624-0143/802-895-4683

IH 843 Combine Cornhead; IH 7ft windrow head for 881 Gehl 350 spreader; 5 ton and 25-ton grain bins; Case

580 backhoe for parts; Case 850 drive sprockets; 85,000 BTU wood coal furnace. Call 802-770-0959

Equine

Icelandic Walking horse cross. He is 14 hh 2 years old gelded and UTD on shots trims and worming and coggins and is an easy keeper. He is a beautiful yellow dun with striping. He will be sturdy and medium sized. He can trot and is also gaited. He needs knowledgeable home and trainer. He is not spooky and very friendly and polite. \$900 B.O. 802-384-3553 or wallysdomesticzoo@gmail.com

Farm & Farmland

For Lease: 10 acres of organic meadow in Brandon, currently in alfalfa. Producing roughly 12-15 tons per year in dry hay. Three-year lease available, price negotiable, but approximately \$600/yr 802-247-8459

Private Horse Farm. 17 + acres. Covered small arena. Large sand ring. Insulated stable with 3 oversize stalls, attached paddocks, feed/tack room, hay storage, grass pastures with board fencing. Vermont country open concept farmhouse. 3 bedrooms, office, sunroom. Solar, cell phone reception, internet. Workshop, chicken house, orchard, stream trails, woods, views. Close to Dartmouth College and DH Medical Center. Equipment and supplies extra. \$549,999. Call 802-785-4410.

General

Shelburne/ 5-gallon pails with handles. \$.75 each. Negotiable for volume purchase. 802-999-4644.

Boumatic pipeline - \$2500 +/-230ft / 2inch / 46 Stalls stainless steel milk line including vacuum line, wash sink, 3 units, control box, and receiver jar is \$2500. \$4000 with vacuum pump. Call (802) 446-2791 Wallingford. Ask for Jerry.

Hay, Feed & Forage

Good quality certified organic Haylage stored in Ag Bags and large round bales 1st, 2nd, and 3rd cut. Delivery available. 802-988-2959 or 802-274-2832

Quality Canadian hay for sale, big/small squares wrapped, or unwrapped, round bales wrapped or unwrapped, 1st, 2nd, 3rd cuts available. Switch grass and straw available, call Richard at 802-323-3275

2019 1st cut Timothy and clover hay \$ 5.00 a bale plus delivery fee. Call 603-256-8422

1000 tons corn silage, processed in Colchester. 50 @ ton 802-272-3478 or 802-223-1370 or email sethgardner@hotmail.com

Excellent quality first cut wrapped round bales; baleage. Shelburne VT Call Andy 802-598-6060. Analysis available upon request.

2019 1st Cut 4X4 Wrapped Round Bales for Sale \$40/ Bale, 2019 2nd Cut 4x4 Wrapped Round Bales for Sale \$45/Bale, South Pomfret, call Tom at 802-457-5834

Organic haylage 12% protein \$45 per ton, 15% protein \$55 per ton. 802-537-2435

4x4 round balage mixed grains cut late June. \$30 802-325-3707

1st cut 4x5 round bales. Don Pettis, 802-265-4566.

1st, 2nd & 3rd cut haylage and corn silage for sale at the bunk. Call Peter Gebbie 802-533-2984, leave a message.



June 15th cut mixed Hay, great quality, Will Load, 4' X 4' Round Bales, \$40/bale, quantity discount/cash prices available. Westford, 802-355-2930

Certified Organic First Cut Wrapped Round Bales for sale. Clover, Timothy and mixed grasses. Test samples and delivery available. Call Matt 802-558-3879.

Vetch & rye seeds for sale, mixed in 50 lb. bags, \$1/lb. certified by Vermont Organic Farmers. Thornhill Farm, 198 Taylor Road, Greensboro Bend, VT 05842, todd@thornhillfarmvermont.com, 802.441.3176

ADDISON COUNTY

1st cut 4x5 round bales never wet. Good horse & cow hay. 802-948-2627 or 802-558-0166

Certified organic, small square bales always stacked and stored under cover, 35-40lbs/ bale. \$4/bale, discounts available for large quantities. 802-989-0781 for inquiries.

Hay for Sale in Addison, VT. Large square bales and small squares. \$50-60 for Large, \$3.50-4.50 for Small. Delivery Available. Call Jack 802-989-8968

Hay for sale. \$3.25 bale. 802-377-5455

73 1st cut 5ft diameter round bales. \$30-\$35. Orwell 802-948-2211

Straw for sale: \$7/bale for 50 or more. \$8/bale for less than 50, \$6/bale for all in the barn, approx. 350. from our winter rye harvest in August. certified organic. Thornhill Farm, Greensboro Bend, 05842, todd@thornhillfarmvermont.com, 802-441-3176.

BENNINGTON COUNTY

Corn Silage 1000 ton plus. Haylage 500 ton plus. Round bales 4x4. Square bales small. 802-394-2976

CALEDONIA COUNTY

Square baled hay—Top quality, VOF certified organic,

CLASSIFIEDS

generous sized. 1st cut \$4.50/bale, 2nd cut \$5.50/bale at the barn in Barnet. 802-592-3088

CHITTENDEN COUNTY

Round bales for horses. Clean first cut timothy mixed grass, quality net wrapped 4' X 5' bales. Never wet. \$45. each. 802-879-0391 Westford.

15 large 5x5 round bales mixed grass w/some timothy + clover 800+lbs \$50 ea. call 899-4126 or e-mail

FRANKLIN COUNTY

Good Quality Hay 1c & 2c from western US & Canada. Alfalfa orchard & orchard sweet grass 18 to 20% plus protein large bales & organic by trailer loads. Large or small square bales of straw whole or processed at farm we load on direct delivery by trailer load. Mountain View Dairy Farm 802-849-6266

LAMOILLE COUNTY

Organic baled straw. \$5.50/bale. Certified organic. Valley Dream Farm, Cambridge, Vt. 802-644-6598 or valleydream@myfairpoint.net.

ORANGE COUNTY

2019 first cut square hay bales for sale. \$4.00 per bale. Delivery available. Bonnie Kennedy, Chelsea, VT. 802-685-2292.

Approximately 375 ton of high-quality grass and clover first and second cut, cut extremely early in 2018. First finished May 22, second finished July 2nd. Tests high in energy and protein. 45% harvested "hay in a day" \$50 per ton. Chris 802-522-9485

ORLEANS COUNTY

Pure alfalfa for sale and also 1st, 2nd and 3rd cut big/small squares, round bales, wrapped or unwrapped, straw and switch grass. Call Richard at 802-323-3275.

Organic Certified Silage for Sale: We will deliver from our farm or you can come and pick up. Call for prices and delivery charge. 1-802-744-2444 or 802-274-4934 or 802-744-6553.

RUTLAND COUNTY

Good quality 1st and 2nd round bales available, wrapped and dried. Please call 802-446-2435.

WINDHAM COUNTY

2020 4X4 wrapped baleage. June cut. Certified organic, never wet. 802-254-6982

1st cut hay. Good horse hay. \$4.50 bale 802-254-5069

WINDSOR COUNTY

Hay for sale-400 square bales, Reading, Windsor County Vt. \$3.50 per bale at the barn. Call 802-484-7240

Rolling Meadows Farm: square bales in the field or barn \$4.00. Delivery can be arranged at \$5.50. Very nice hay from fertilized fields in the South Woodstock and Reading area. Call 802-484-5540 or goodfarmvt@gmail.com. Ask for David.

4x5 dry round bales \$45.00 delivery available. 802-457-1376

1st. cut dry round bales for sale. Never been rained on, stored under cover. \$50. @ 1st. cut haylage bales for sale. \$45. Rte. 5 Weathersfield Bow 802 -546-4340.

Dry Round Horse Hay, \$50/Bale. 200 Bales left. Call 802-356-5030.

SHEEP

Sheep Feeders - DS Livestock: 8' long, 4' long and two hexagonal. 20 years old - all steel frames. Cost new without shipping \$1,420. Package price \$475. bearmountainfarmVT@gmail.com (802)-394-7852

A pure bred (w/papers) Romney Ram 3 years old, 1 pure bred (w/papers) Shetland ram for sale. 4 icelandic/romney ewes for sale various ages/colors

(certified organic) 422 4704 leave message.

Buying Lambs- 40 lb and up, and \$1.75/ lb live weight. Call 802-674-2417. Pick up available.

WANTED

Dairy Grazing Apprentice, currently on the Corse Farm, graduating in September 2021 looking for placement on a farm that has at least a potential organic market in the future. Ideally 50 to 80 cows with adequate grazing land and a farmer, without a successor, interested in a gradual transition to a new

farmer. MacKenzie Wallace mackenzierwallace2@gmail.com or Home Number 802-368-2230 or Cell Number 603-289-4790 between 12:30 -1:30 PM or 7:30 -8 PM

F350 or 450 flatbed dump. Dutch belt heifer calf and black white face bull calf. 603-336-0017

Looking for several 4 spoked 4 ft. diameter pin wheels for an old Farmhand rake. The 90-degree rod hole holding the pin wheel on is 21/4 inches in diameter. Call 802-457-2218

Vermont 4-H Hosts Gardening Series For Kids

A free series for youths, ages 8-18, will focus on resources and skills to grow and eat healthy food.

The biweekly program, offered through University of Vermont (UVM) Extension 4-H, will take place via Zoom on Tuesdays from 3:30-4:30 p.m. Sessions are planned for May 4 and 18 and June 1 and 15.

Both new and experienced gardeners and cooks are encouraged to attend. Youths are welcome to participate as individuals or as a class, club or other group. Membership in 4-H is not required. To register, go to <https://go.uvm.edu/4-h-gardening>.

Presenters include UVM Extension Master Gardeners, nutrition educators and 4-H staff. The series is



Photo courtesy of Green Mountain Farm to School

dietary choices. Each session is designed to increase awareness of the wider natural environment and will include a take-home activity.

These activities include paper towel planting, growing sprouts in a Mason jar, seed starting, direct-sowing of edible flowers and finding a "sit spot" to observe the natural world, among others. Book recommendations and other resources

also will be shared so participants can explore topics in depth on their own. Visit www.uvm.edu/extension/youth/announcements for more information. To request a disability-related accommodation, contact Liz Kenton at liz.kenton@uvm.edu or (802) 257-7967, ext. 308.

Among the topics covered will be tips for growing vegetables, pollinator-friendly and edible flowers, seed saving, edible and inedible wild plants, animals in the garden and nutrition, including recipes and information to make healthy

Vermont Farm Bureau is a grassroots not-for-profit membership organization dedicated to supporting Vermont farm families, agriculture and forestry.

We advocate for public policies that strengthen and grow our agricultural economy and conserve our natural resources.

www.vtfb.org



Pigging Out with Animal Health

By Dr. Kaitlynn Levine, VT
Agency of Agriculture, Food &
Markets

On a cold day in February the Agency of Agriculture, Food & Markets' Animal Health Section teamed up with USDA partners to blood test a Vermont herd of pigs. Adult pigs (and even piglets) can be challenging to sample if they decide they don't want to cooperate. Thankfully, due to the expert restraint techniques of the team, little wrestling was actually required, and thanks to reliable ear plugs, the Animal Health team finished with no negative impacts!

The mission the team chose to accept was to make

sure this herd did not have brucellosis. Brucellosis bacteria can reduce reproductive performance in pigs and other livestock and can cause in humans what was once called Undulant Fever, a vague collection of intermittent symptoms such as fever, aches and pains, fatigue, and occasional diarrhea. Thankfully, Vermont has been classified as brucellosis-free by the USDA. Despite Vermont's "free" status, pigs will occasionally return suspected positive on routine surveillance testing as was the case with two pigs from this herd. To ensure that this was a false positive, the rest of the breeding herd was tested.

Like every good livestock producer, this farmer

knew the behavior and tendencies of his herd better than anyone and ensured that all pigs were in individual stalls and supplied a tasty treat of milk and grain to make up for any bad feelings they may have otherwise had. As expected, all of the tests came back negative.

The Agency's Animal Health team works hand in hand with USDA to maintain Vermont's disease-free status for brucellosis, tuberculosis and pseudorabies. Maintenance of this status through surveillance testing enables Vermont livestock owners to import and export livestock cost effectively and without completing the regulatory disease testing required of producers in other states. Ensuring the

traceability of Vermont's livestock is another cornerstone of Vermont's animal health program.

To learn more about the

Animal Health Section, please call 802-828-2421 or visit our website <https://agriculture.vermont.gov/animal-health>

Vegetable & Berry News *continued from page 10*

Fruit Management Guide is at <https://netreefruit.org/>.

Research Project On Farmers' Market Sales Seeks Growers

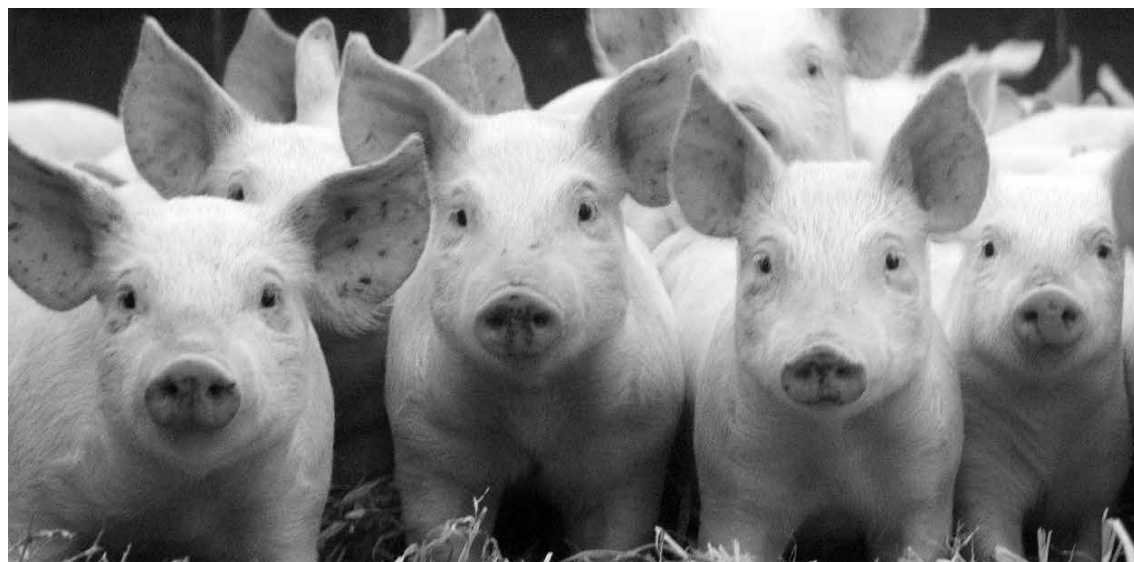
NOFA-VT is conducting research on sales data from fruit and vegetable farms who sell at farmer's markets. Participants in the project will record their sales on Point-of-Sale (POS) software such Square for phones and tablets. Our team will analyze the data and provide the participating farm with: monthly and seasonal reports with analyzed sales data, one-on-one sales strategy consulting sessions at the end of the season based on their data, and feedback on overall sales and pricing benchmarks. A recorded webinar detailing the project and outlining findings from a similar project done by Cornell is at <https://docs.google.com/forms/d/e/1FAIpQLSeaBhUsVbvB59vAAJ7h91ybGwKi>

[4WNkkfe_jK9ygbvDlqbLg/viewform?usp=sf_link](https://agriculture.vermont.gov/animal-health).

For more information: Bill Cavanaugh, bill@nofavt.org or (802) 434-7154.

High Tunnel, Irrigation Funding Applications Due May 14

Up to \$200,000 in financial assistance is available through the Agricultural Management Assistance (AMA) program to implement conservation practices such as high tunnels, micro-irrigation and other specific irrigation and water related practices. The USDA Risk Management Agency will collaborate with NRCS to distribute these funds using NRCS conservation program contracts. In Vermont, historically underserved groups, such as new and beginning farmers, socially disadvantaged farmers, and veteran farmers are eligible for up to 90% of NRCS payment rates. Contact your local NRCS field office to apply.



Subscribe to *Field Notes*!

A quarterly newsletter from the Vermont Agency of Agriculture, Food & Markets' Food Safety and Consumer Protection Division

If you eat food or purchase commodities at retail in Vermont, you will benefit from quarterly updates from the Agency's Food Safety and Consumer Protection Division, comprising the Dairy, Animal Health, Meat Inspection, Weights and Measures, and Agricultural Products Sections. Get a glimpse into how this specialized team ensures safe food and fair markets for all Vermonters! To subscribe, visit here: <https://mailchi.mp/f26e9073062e/07qpkd3niy>



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Apiary Program Update



By Brooke Decker, VT Agency of Agriculture, Food & Markets

Honeybees are important for our food supply in two ways — honey and pollination. Ninety agricultural crops rely on bees for pollination, including almonds, apples, blueberries, cherries, watermelon, and squash. According to the FDA, honeybees contribute to over \$15 billion in added crop value. Honeybees and other pollinators provide pollination services to livestock forage crops like clover, vetch, buckwheat and alfalfa.

According to the newly released National Agricultural Statistics Service (NASS) report, from March 2021, United States honey production in 2020 totaled 148 million pounds, down 6 percent from 2019.

In Vermont, there are an estimated 6,000 commercial honeybee production colonies producing an average of 47 pounds per hive. (NASS, 2021) Many beekeepers reported harvesting about half as much honey in 2020 as they did in 2019, primarily due to the drought conditions last summer and fall.

A recent study published in the journal *Nature*, states that summer weather conditions influence winter survival of honeybees in the northeastern United States. Considering that honeybees in Vermont have the ability and resources to forage only 6-7 months of the year,

2020 Vermont Beekeeping in Numbers:

Beekeepers.....	771
Apiaries	1338
Colonies at summer peak.....	14,543
2020 state Inspected colonies	946
2020 state Inspected Apiaries.....	85
Honeybee disease diagnosis	
Lab Samples submitted	128
American Foul Brood cases	49
European Foul Brood cases.....	21

a drought at a time when the bees are building their colonies to survive the long winter months, is likely contributing to the already numerous challenges that honeybees and beekeepers face.

Beekeepers are likely continuing to feel the effects of last year's drought, as many are reporting higher than usual winter losses of their honey bee colonies. Some beekeeping operations are reporting upwards of 50-60% colony losses. For operations with many hundreds of colonies, this loss means that potentially upwards of three thousand or more colonies lost over the winter in Vermont.

Lack of summer forage is only one of several contributing factors that may determine colony health and winter survivability. Pests such as the Varroa mite combined with the numerous viruses they vector, and diseases such as American Foul Brood (AFB), European Foul Brood (EFB), and chalk brood are

huge contributing factors to colony health. AFB being one of the most destructive honeybee brood diseases. It can infect strong or weak colonies, is fatal, highly contagious, and its spores can remain viable for decades.

There are things all beekeepers can do to help mitigate these pests and diseases. Starting the season off with a solid pest and disease mitigation plan is the first step. A good mite mitigation plan includes monthly monitoring of mites using alcohol wash method. When mite thresholds reach greater than 3 mites per 100 bees, treatment, or actions to mitigate are highly encouraged.

May is a great time of year to conduct full hive inspections. Not only is it a time to evaluate the queen, but it is extremely important time to closely inspect all frames in the hive, especially taking

time to examine every cell of the brood combs. Learning the signs and symptoms of all diseases, especially AFB is critical. Practice good hive hygiene by cleaning your hive tool, equipment, and clothing frequently. Closely examine all combs for disease before transferring to other hives. Any suspect brood cells should be sampled for lab testing. If AFB is suspected, contact the state apiculturist immediately.

For more information, contact Brooke Decker by email brooke.decker@vermont.gov or by phone 802-272-6688.



Custom Manure Applicator Certification and Educational Credit Opportunities Available

By Mary Montour, VT Agency of Agriculture, Food & Markets

Are you a new full-time custom manure applicator or a new full-time employee of a custom manure applicator operation? If yes, you need to become certified with the Vermont Agency of Agriculture, Food and Markets (VAAFMT) to operate within the State per the Required Agricultural Practices. To become certified, custom applicators must pass the Custom

Manure Applicator Exam. Certification lasts for five years but must be renewed annually.

There are two ways you can get certified; in-person or online. In-person trainings and exams can be set up by contacting Mary Montour at mary.montour@vermont.gov or (802) 461-6087. In 2021, new custom applicators have the option to certify online to reduce in-person contact and respect COVID-19 requirements. To certify online, go to <https://campus.extension.org/> to create your free account, take the

online course, and follow the instructions at the end of the course for certification.

The trainings and exam are free, but a \$30 certification fee is required to operate each year. Those who attend an in-person training and exam or complete the online course will receive two custom applicator educational credits.

Custom applicators need to earn eight credits every five years to maintain certification. There are existing online educational opportunities through the UVM

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Protecting the Public, Workers, and the Environment: Pesticide Use on Hemp Crops

By Matt Wood, VT Agency of Agriculture, Food & Markets

Compliance with the Vermont Hemp Rules (VHR) begins with registration. Additionally, the VHR includes the required tests for compliance with contaminant thresholds established in the Cannabis Quality Control Program. These required analytical tests include detection of harmful pesticides in certain instances. But testing for pesticides is not the only step in producing a safe hemp product or hemp-infused product. It starts with being aware of and using good farming practices, either regulatory or non-regulatory.

When faced with pest pressures and choosing a pesticide a grower must be aware of the regulations that apply, both state of Vermont pesticide regulations and US Environmental Protection Agency (EPA) regulations. Although there are currently no pesticides that list hemp as an allowed application site on the label, as of the writing of this article the EPA has approved 56 biopesticides and one conventional pesticide that can be used on hemp. These products are also required to be registered for use in Vermont prior to be offered for sale in the state. These regulations are in place to protect the hemp crops, workers on the farm, and the environment.

The Worker Protection



Standard (WPS) regulations apply as soon as one uses a pesticide on an agricultural crop whose label contains "Agricultural Use Requirements" that reference WPS. If this is the case, all WPS requirements will need to be met each time that pesticide is used, which include employer provided pesticide safety, application and hazard information, pesticide safety training, decontamination supplies, and emergency assistance if needed.

The pesticide safety, application and hazard information includes posting at a central location the facts about what pesticide was applied, where, when, and how long workers must stay out of the treated area(s). It also includes a requirement to supply Safety Data Sheets (SDSs) for each product applied so specific health effects can be known. The pesticide safety training must be done annually before any workers start work in any area that has been treated with a WPS-labeled pesticide. It consists of pre-approved oral or written

materials or videos available online via YouTube. The training must be conducted by a properly trained trainer, which may mean an employee becomes a certified pesticide applicator.

The Worker Protection Standard also requires the employer provide workers with supplies for decontaminating themselves in the case of a pesticide exposure, including such materials as water, soap, and single-use towels. If a worker has been exposed to pesticides on the hemp farm and requires emergency assistance, the employer must assist in transportation to an appropriate emergency medical facility and provide information about the possible pesticide involved.

The Agency of Agriculture, Food & Markets is very interested in helping you comply with these complex regulations, so feel free to contact us for help before we conduct an inspection and find shortcomings.

For a list of pesticide products approved by EPA for use on hemp, search online for "hemp approved



pesticides" and confirm that you are visiting an EPA.gov website.

<https://www.epa.gov/pesticide-registration/pesticide-products-registered-use-hemp>

For more information on pesticide use on hemp, search online for "Vermont Hemp Pesticide Guidance," check that you are visiting a Vermont Agency of Agriculture, Food & Markets website, and scroll down to "Pesticide Guidance."

For information about the Worker Protection Standard, search online for "Pesticide Educational Resources Collaborative" and click on <http://pesticideresources.org/>.

For information on becoming a certified pesticide applicator in Vermont, contact anne.macmillan@vermont.gov.

For information on pesticide regulations or WPS help, contact matthew.wood@vermont.gov or 802-318-1383.

Manure Applicator Opportunities

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eXtension website, including:

- Custom Applicator Online Course (2 credits)
- Vermont RAPs and Nutrient Management Planning (1 credit)

To sign up for these online courses and learn how to obtain credits, please contact Lindsey Ruhl at UVM Extension – Lindsey.Ruhl@uvm.edu.

Additional online and

in person events will be announced when more details are available. Seasonal, part time, or other staff must also be trained in methods or techniques to minimize runoff to surface water when spreading manure. How you demonstrate staff are trained is at your discretion.

If you have any questions about your certification, are looking for events to attend for educational credit, or if you are an applicator that needs to be certified in Vermont, please contact the Agency at 802-828-2431.

Breakfast on the Farm Virtual Tour Success

By Laura Hardie,
New England Dairy

On Sunday, March 21, more than 1,100 visitors gathered virtually on Zoom and around their breakfast tables for a tour of Miller Farm in Vernon for this year's Vermont Breakfast on the Farm. The southern Vermont dairy farm is currently managed by three families, Pete and Angela Miller, Art and Judy Miller, and Keith and Tina Franklin.

The families converted their farm from a conventional dairy to an organic dairy farm in 2009. They provide milk to Stonyfield Organic, and also sell up to 100 gallons of milk a day locally from their on-farm processing facility for their Miller Farm brand of milk.

The 60-minute tour featured the milking cow barn, calves, environmental practices, processing and more. Hundreds of questions came in from viewers all across the country. After the tour, survey results showed that the percent of people who felt "very positive" about dairy farming increased by 30 percentage points, with a total of 96 percent of viewers feeling "very positive" or "positive" about dairy farming. Some of the comments from viewers were:

"It's always good to see the people and animals behind the product. It adds a connection to food that we are missing as a society."

"I learned so much of how a dairy farm operates - and



saw the love of the Miller family for their cows, for each other, and for farming."

"It's always nice to hear dairy farmers comment on 'happy cows.' As a consumer, I appreciate knowing that farmers have their cow's best interest at heart."

"I am happy to hear that they care so deeply about the environment and are working to transition to

carbon neutral. It was heartwarming to see their family business."

"Farming is a very stressful business. Seeing farmers with a positive attitude is uplifting. We cannot lose them!!! Thanks to all of them."

Miller Farm cares for about 700 acres of land in a combination of corn, alfalfa, mixed grass and pasture land.

By rotational grazing the cows, the farm sequesters carbon in the soil and is contributing to the U.S. dairy industry's goal to become carbon neutral by 2050.

You can watch the virtual farm tour, stay up to date on Vermont Breakfast on the Farm events, and learn more about Miller Farm at www.VermontBreakfastOnTheFarm.com.

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